030-051-6352-A

ROAD RECONNAISSANCE
Part I

NEWARK PUBLIC LIBRARY
AUG 1 0 1985
U. S. GOVT. PUBS.
DEPOSITORY 376

TEC LESSON 030-051-6352-A

PRODUCED BY
UNITED STATES ARMY
ENGINEER SCHOOL
FORT BELVOIR, VIRGINIA 22060

STUDENT/SUPERVISOR INSTRUCTIONS, PRETEST/POSTTEST, AND ANSWER KEY ARE CONTAINED IN THIS BOOK.

REVISED
JUNE 1985

D 10.6/2:

READ THE STUDENT/SUPERVISOR INSTRUCTIONS CAREFULLY. BE SURE YOU UNDERSTAND THEM COMPLETELY BEFORE BEGINNING THE LESSON. PLEASE DO NOT WRITE IN THIS BOOK.

The words "he," "his," and "men," when used in this publication, represent both the masculine and feminine genders, unless otherwise specifically stated.

STUDENT/SUPERVISOR INSTRUCTIONS

TYPE OF LESSON

- Road Reconnaissance

AUDIENCE

- Combat Engineer
- Skill Levels One and Two

TRAINING OBJECTIVES

Soldiers completing this lesson will be able to:

- Collect measurements and data.
- Translate data into symbols.
- Record these symbols in the correct order in the Road Classification Formula.
- Prepare Section IV, Mileage Chart of DA Form 1248.

MATERIAL/EQUIPMENT/PERSONNEL REQUIRED

- Pencil and Paper
- DA Form 1248

TIME REQUIRED

- Individual: 60 minutes
- Group: 80 minutes

REFERENCES

- FM 5-34
- FM 5-36

STUDENT/SUPERVISOR INSTRUCTIONS

STUDENT INSTRUCTIONS

- Prerequisites: TEC Lesson 030-051-6351-F
- Take the Pretest/Posttest. If you pass, you do not have to take the lesson.
- Make sure you have the material, equipment, and personnel required to complete the lesson.
- Take the lesson.
- When you complete this lesson, take the Pretest/Posttest again. If you do not pass, take the lesson again.

SUPERVISOR INSTRUCTIONS

- Make sure students have completed the prerequisites listed in the Student Instructions.
- Administer the Pretest/Posttest to determine need for the lesson. If only one soldier is being tested, the test may be taken directly from the book, with response made on a separate sheet of paper. If more than one soldier is being tested, reproduce the test for direct use. To pass the test, a soldier must answer 100% of the items correctly.
- Make sure students have the material, equipment, and personnel required to complete the lesson.
- Administer the lesson to students who do not pass the Pretest/Posttest.
- Administer the Pretest/Posttest to students who complete the lesson. Those who do not pass must take the lesson again.

TEC LESSON 030-051-6352-A
Road Reconnaissance
Part I

This test consists of an exercise that covers every training objective of the lesson. The exercise has a total value of 100 points. When you have completed the test, check your answers against the Pretest/Posttest Answer Key. If you do not complete all parts correctly, you must take the lesson—or take it again if you have already taken it. If you are taking the test directly from the instruction book, write your answers on a separate sheet of paper.

Take out a blank DA Form 1248. Using the following data and FM 5-34, prepare SECTION IV of this form.

(1) Width of road at start—6.5/8 meters
Date of reconnaissance—11 July 1978
Time—0900 hrs.
Starting Point—Rt. 507

(2) Starting odometer reading—7542 miles
(GRID EG 025848)

(3) Road surface—concrete

(4) **Road change**—odometer 7542.9 miles (1.45 Km)

(a) Roadway width—6/8 meters

(b) Uphill slope of 9% for 250 meters
(GRID EG 034795)

(c) Road surface—concrete

(d) Junction with 2 unnumbered dirt roads—odometer 7543.6 miles

(5) **Road change**—odometer 7543.9 miles (3.06 Km Total Distance) (1.61 Km Section Length) (GRID EG 051865)

(a) Sharp curve with radius of 17 meters obstruction to traffic flow
(GRID EG 047692)

(b) Road surface—bituminous (asphalt)

(c) Roadway width—5/8 meters

(d) Junction with unnamed blacktop road—odometer 7544.5 miles
This road will accommodate wheeled vehicles and is 1 Kilometer long.

(e) Slope (downhill) of 8% 225 meters long
(GRID EG 053174)

READEX FICHE best copy available

(f) Curve with radius of 40 meters

(6) **Road change**—odometer 7548 miles (9.65 Km Total Distance) (6.59 Km Section Length)

(a) Roadway width—6.5/8 meters

(b) Slope of 11% (Uphill) 400 meters
(GRID EG 068638)

(c) Roadway surface—bituminous (asphalt)

(d) Blocked culverts restricting drainage—undetermined cause

(e) Potholes in the road causing surface problems

(7) **End of reconnaissance**—odometer 7549.6 (12.23 Km Total Distance) (2.57 Km Section Length) (GRID EG 073951)

(a) Junction with dirt road having good concealment for wheeled vehicles over 500 meters long

INTENTIONALLY
BLANK

INTRODUCTION

As NCOIC of a road reconnaissance, you are responsible for collecting and recording road measurements and data. You use the measurements and data to determine the road's traffic capabilities and to provide detailed information for the Road Classification Formula.

In this lesson you will learn the following 4 steps of a road reconnaissance. In the next lesson, you will learn the final step.

Collect measurements and data.

Translate data into symbols.

Record these symbols in the correct order in the Road Classification Formula.

Prepare Section IV, Mileage Chart of the DA Form 1248.

Turn the page and begin. . .

MATERIALS:

- You need paper and pencil, your FM 5-34, and blank DA Forms 1248 to take this lesson.

Directions:

- Read each step carefully. Go through the lesson as many times as you want.
- Do not write in this booklet.

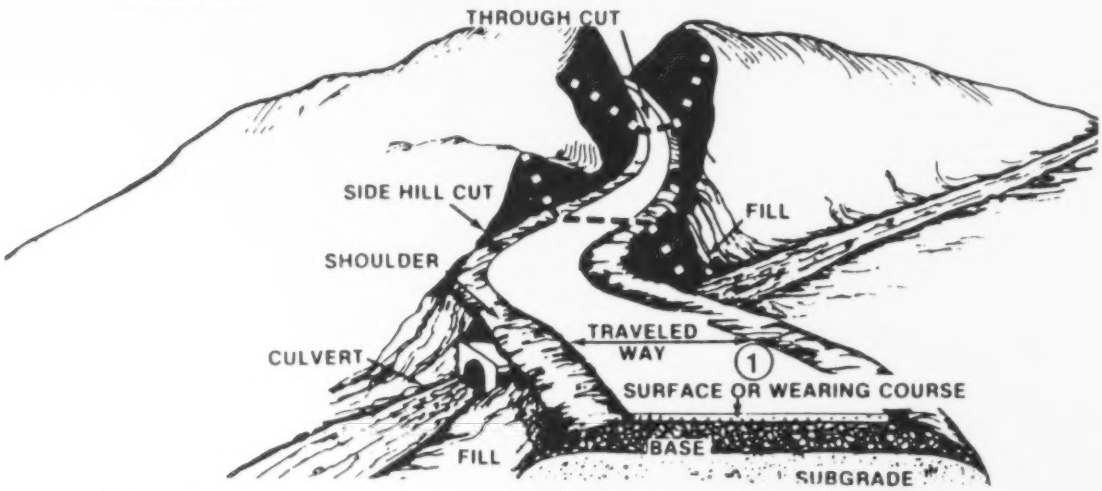
STEP 1 Collect Measurements and Data:

During a road reconnaissance you obtain measurements and data to determine the load-bearing capacity of the road. You include the following measurements in DA Form 1248, the Road Reconnaissance Report. Study them now.

1. Limiting characteristics
2. Road width
3. Road surface materials
4. Road length
5. Obstructions
6. Special conditions

You must also record intersecting road approaches.

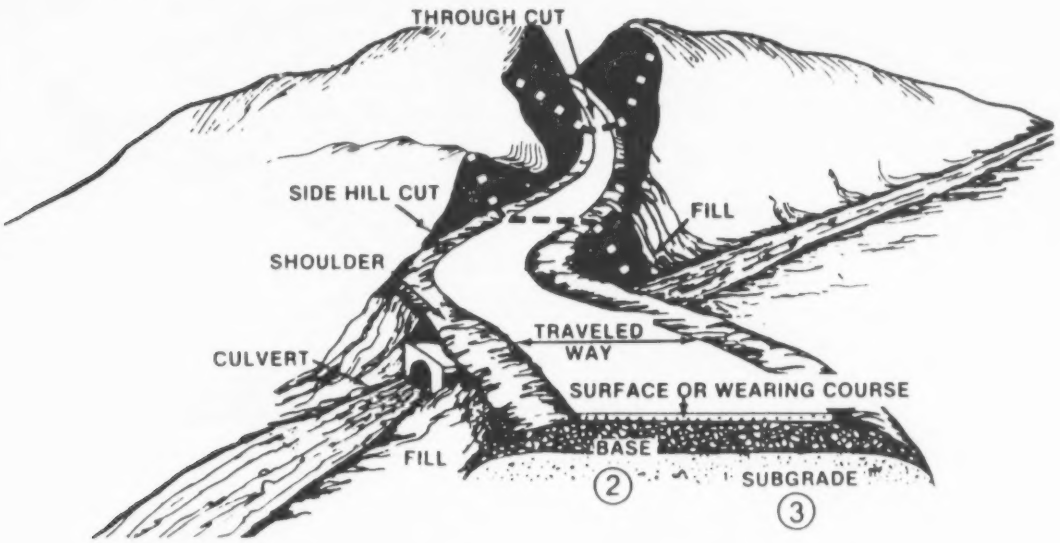
In order to collect the proper measurements and data, you must be familiar with the road. For this reason you will begin this lesson by learning the parts of the road.



① SURFACE OR WEARING COURSE

- The surface or wearing course is the top portion of the road structure.
- During the road reconnaissance you must identify the surface materials and the condition of the surface material.

PARTS OF THE ROAD



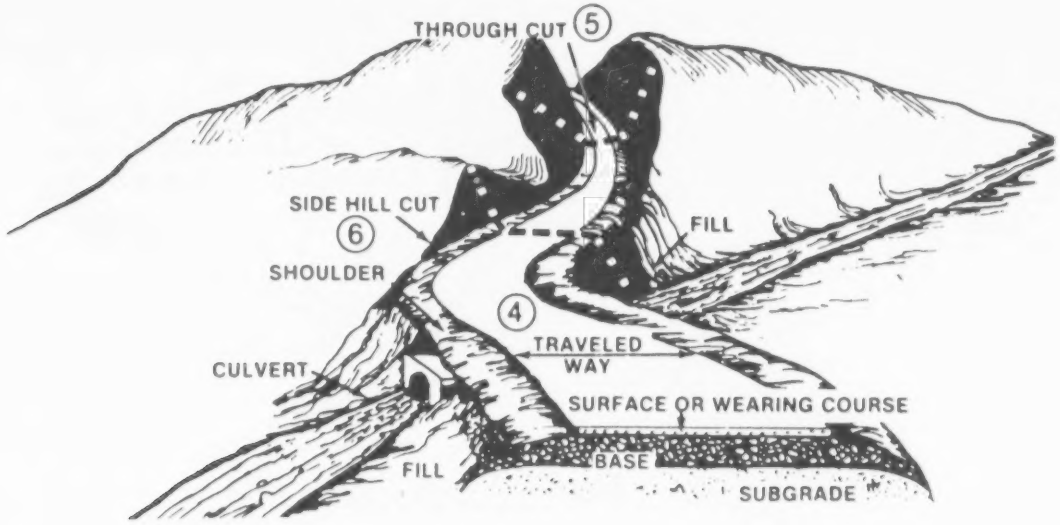
② BASE

- The base is the intermediate portion of the road structure which distributes the stress from the vehicles to the subgrade.
- Check the condition of the base in determining the condition of of the road if possible.

③ SUBGRADE

- The subgrade is the foundation of the road structure which supports the vehicles. Subgrades are usually composed of available natural materials.
- Check the condition of the subgrade if determining the limiting characteristics of the road.

PARTS OF THE ROAD (Cont.):



④ TRAVELED WAY

- The traveled way is the portion of the road surface upon which all vehicles move.
- Measure the width of the traveled way at the beginning of the road reconnaissance. Measure the traveled way width again only when the width changes.

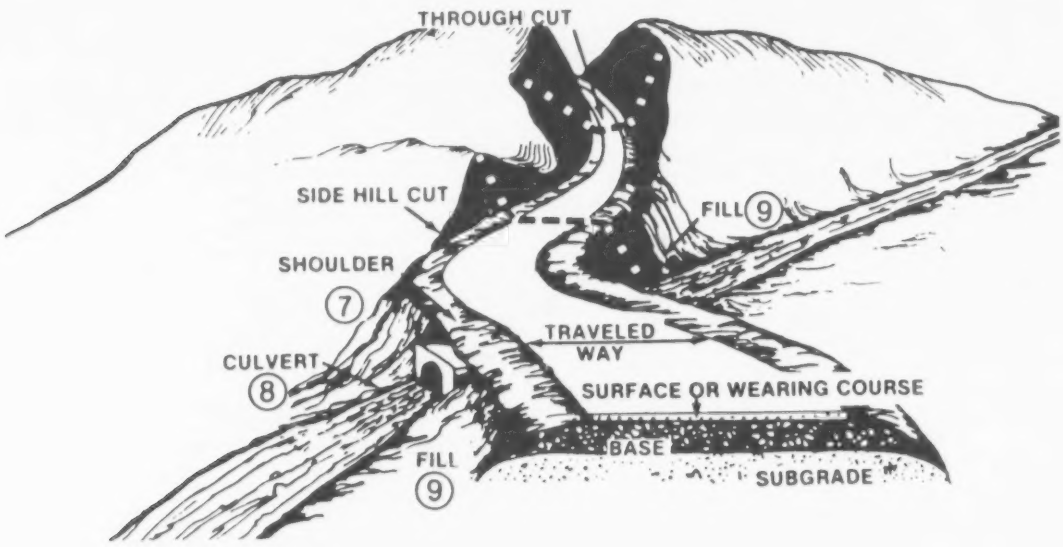
⑤ THROUGHCUT

- A throughcut is the portion of a hill cut to reduce the grade of the road.
- During the road reconnaissance you measure the width of the cut through the bank and the percent of slope. You must also check the condition of the drainage.

⑥ SIDE HILL CUT

- A side hill cut is a portion of the hill cut to allow for the required width of a road.
- Measure the percent of slope and the width of the cut. Collect information about the drainage and the foundation.

PARTS OF THE ROAD (Cont.):



⑦ SHOULDER

- The shoulder provides additional width beyond the traveled way.
- Measure width of the shoulders during reconnaissance.

⑧ CULVERT

- A culvert is a part of the drainage system.
- During the reconnaissance you must collect data about the road's drainage system.

⑨ FILL

- A fill is a low area that has been filled with material to bring the road up to grade.
- Observe the condition of the fill very carefully.

PRACTICE EXERCISES:

① When conducting a road reconnaissance, which of the following must you measure and include on your road reconnaissance report? Write the letters.

A. Road length

B. Limiting characteristics

C. Road width

D. Intersecting road approaches

E. Nearby natural resources

F. Road surface materials

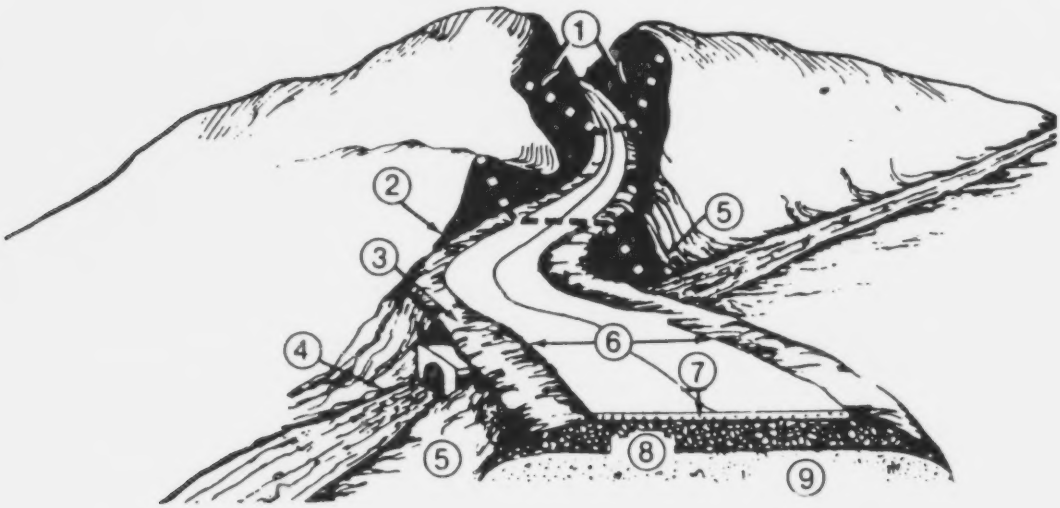
G. Obstructions

H. Special conditions affecting the road

I. Enemy activity near road

PRACTICE EXERCISES (Cont.):

② Letter your paper A through I. Match the number in the diagram with the right letter. You may refer to the text at any time.



A. Base

B. Surface or wearing course

C. Subgrade

D. Traveled way

E. Throughcut

F. Side hill cut

G. Shoulder

H. Culvert

I. Fill

Check your answers on the next page.

CHECK YOUR ANSWERS:

① A, B, C, D, F, G, H

② A. 8

B. 7

C. 9

D. 6

E. 1

F. 2

G. 3

H. 4

I. 5

You now know the most important measurements and data to collect on a road reconnaissance. In the next section you will learn to translate this data into symbols.

STEP 2

Translate Data into Symbols:

- As NCOIC of the road reconnaissance, it is your job to translate all the measurements and data into their proper symbols.

- On the job you record the appropriate symbol for the limiting characteristics you observe during the recon. Here is a list of all the LIMITING CHARACTERISTIC Symbols you need to know:

LIMITING CHARACTERISTICS

CHARACTERISTIC	SYMBOL
Curves (radius 25m or less)	c
Gradients (7% or greater)	g
Drainage (inadequate)	d
Foundation (unstable)	f
Surface Condition (rough)	s
Camber or superelevation (excessive)	j

A or B Write B before the appropriate symbol(s) if there are limiting characteristics. Write A if there are no limiting characteristics. In the example below there are limiting characteristics.

You can find these symbols in FM 5-34 at any time during the recon.

Study this example:

B c (d?)

Match the symbols with these limiting characteristics:

B Write B for limiting characteristics.

c Write the appropriate symbol for the limiting characteristic(s). In the example above there is a curve with a 25m radius.

(d?) Write a question mark following an unknown or undetermined symbol. Place the symbol and the question mark in parentheses. In the example above there is an undetermined drainage problem.

PRACTICE EXERCISES:

You may use your FM 5-34 to answer these questions.

③ When do you record curves as limiting characteristics?

④ When do you record gradients as limiting characteristics?

⑤ Write the appropriate symbols for the following limiting characteristics.

A. Surface conditions _____

B. Curves _____

C. Drainage _____

D. Gradients _____

E. Camber or superelevation _____

F. Foundation (unstable) _____

⑥ Write the symbols which correctly record a road with gradients (slopes) of 12%, blocked culverts, and unknown or undetermined foundation conditions.

INTENTIONALLY
BLANK

CHECK YOUR ANSWERS:

③ You record curves as limiting characteristics when they are 25 meters or less.

④ You record gradients as limiting characteristics when they are 7% or greater.

⑤
A. Surface conditions s
B. Curves c
C. Drainage d
D. Gradients g
E. Camber or superelevation j
F. Foundation (unstable) f

⑥ Bgd(f?)

Here are the symbols for recording the road surface:

SYMBOL	SURFACE
k	Concrete
kb	Bituminous or asphaltic concrete (bituminous plant mix)
nb	Bituminous surface treatment on natural earth, stabilized soil, soil, sand-clay, or other select material
b	Used when type of bituminous construction cannot be determined
pb	Bituminous surface on paving brick or stone
rb	Bitumen-penetrated macadam, water-bound macadam with superficial asphalt, or tar cover
p	Paving brick or stone
r	Water-bound macadam, crushed rock, or coral
l	Gravel or lightly metalled surface
n	Natural earth, stabilized soil, sand-clay, shell, cinders, disintegrated granite, or other select material
v	Various other types not mentioned above

On the job you can find these symbols in your FM 5-34.

PRACTICE EXERCISES (Cont.):

⑦ Using your FM 5-34 or the chart on page 13, write the symbols for the following road surface materials.

A. Bituminous surface on paving brick or stone ____

B. Used when type of bituminous construction cannot be determined ____

C. Bituminous concrete ____

D. Paving brick or stone ____

E. Gravel or lightly metalled surface ____

⑧ During a road reconnaissance you determined the following information: no limiting characteristics, road surface material—concrete. Write the symbols.

⑨ Write the symbols for the following road characteristics:

Curves: 2.5m

Gradients: 8%, 9.5%

Surface condition: rough, potholed

Drainage: inadequate, but source undetermined

Road surface material: water-bound macadam

Turn the page to check your answers. . .

INTENTIONALLY
BLANK

CHECK YOUR ANSWERS:

⑦ A. pb

B. b

C. kb

D. p

E. L

⑧ Ak

⑨ Bcgs(d?)r

If you answered the practice exercises correctly, you are ready to proceed. If you are having problems, do not proceed; review Steps 1 and 2 and repeat the exercises.

RECORD OBSTRUCTION SYMBOLS (OB):

- Read and study the list of obstructions and special conditions in the section on Road Recon in your FM 5-34.
- When you are finished, answer the practice exercises. You may use your FM 5-34 at all times.

PRACTICE EXERCISES:

⑩ Your crew reports that there is a tunnel with an overhead clearance of 4'0". Is this an obstruction? If yes, what symbol do you use?

⑪ Your crew reports that the slope of the road is 6%. Is this an obstruction? If yes, what symbol do you use?

Check your answers on the next page.

CHECK YOUR ANSWERS:

⑩ Yes. (OB)

⑪ No

If you had no difficulty with these exercises, try these. . .

PRACTICE EXERCISES:

⑫ Your crew reports that flooding is a recurrent problem. What symbol do you use to express this data?

⑬ While conducting a reconnaissance you encounter snow blockage for 500 feet along the road. What symbol do you use to express this special condition?

Turn the page to check your answers. . .

INTENTIONALLY
BLANK

CHECK YOUR ANSWERS:

⑫ (W)

⑬ (T)

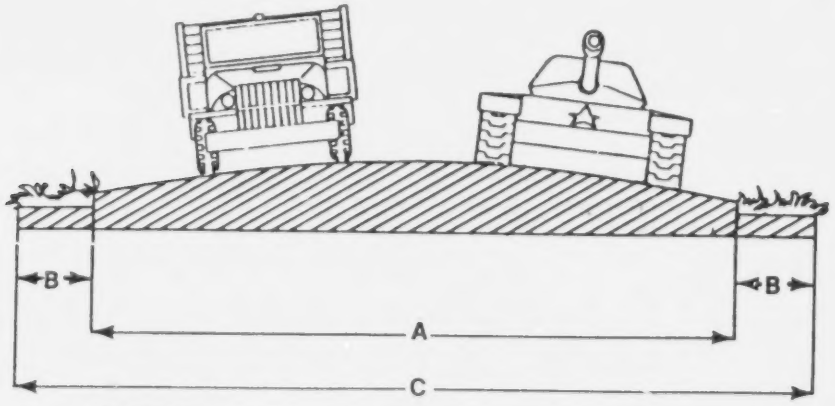
If you had any problems, reread those areas that are giving you trouble. Then work through the practice exercises again.

If you got all the practice exercises correct, you are ready to learn the proper way to record measurements.

Turn the page to begin.

RECORD ROAD WIDTH MEASUREMENTS:

- You must collect road measurements as well as data about the road.
- Refer to your FM 5-34 and read how to record road width measurements.
- If you have forgotten the procedure for measuring road width, here's a quick review. Refer to the diagram below.



LEGEND

A WIDTH OF TRAVELED WAY
B WIDTH OF HARD SHOULDER
C WIDTH OF TRAVELED WAY AND SHOULDERS

Ⓐ Measure the minimum width of the traveled way.

Ⓑ Measure the width of the shoulders.

Ⓒ Add the sum of the shoulders to the traveled way to obtain the combined width of the traveled way and shoulders.

- Record the width of the traveled way in meters followed by a slash (/) and the combined width of the traveled way and the shoulder. Here's an example:

14 / 16

Traveled Way Width

Traveled Way Width and Shoulder Width

If you understand this procedure, you are ready to learn how to record road length measurements. Turn the page. . .

RECORD ROAD LENGTH MEASUREMENTS:

Here is the procedure for calculating the length of the road in kilometers. Study it carefully.

- Record your odometer reading at the beginning and at the end of the reconnaissance.
- Subtract the beginning odometer reading from the end reading.
- Multiply the difference by 1.6093 to convert the miles into kilometers.
- Round the product off to the nearest hundredth.
- Place the road length measurement in parentheses (7.2 km).

Here's a sample:

At the beginning of your reconnaissance your odometer read 49,578. At the end the odometer read 49,652. Here's how you find the length of the road you reconnoitered.

49,652	end reading
−49,578	beginning reading
74	miles
×1.6093	
222	
666	
444	
74	
119.0882	kilometers or (119.09 km)

Check this distance with your map distance.

Turn the page for some practice.

PRACTICE EXERCISES:

⑭ Your crew reports the following information to you. How do you record these measurements?

Traveled way width: 8.2 meters

Traveled way and shoulder width: 10.6 meters

⑮ How do you record the following measurements?

Traveled way width: 6.4 meters

Each shoulder width: 1.3 meters

Traveled way and shoulder width: ?

⑯ How do you record the road length in kilometers given the following information?

Beginning odometer reading: 26,853

Ending odometer reading: 26,896

Check your answers on the following page. . .

ANSWERS:

(14) 8.2/10.6 meters

(15) 6.4/9 meters

(16) 69.2 kilometers

$$
\begin{array}{r}
26{,}896 \\
-\,26{,}853 \\
\hline
43 \\
\times\, 1.6093 \\
\hline
129 \\
387 \\
258 \\
43 \\
\hline
69.1999
\end{array}
$$

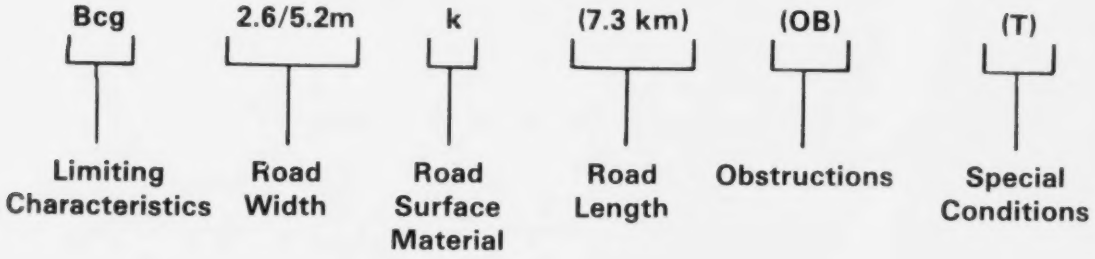
You have learned the symbols for recording limiting characteristics, road surface materials, and road obstructions in the Road Classification Formula. You have also learned how to record road width and road length in the formula. Since you can refer to your FM 5-34 at any time, you do not need to memorize these now.

In the next section you will learn to place these symbols and measurements in their proper order in the Road Classification Formula.

Turn the page and begin. . .

STEP 3 Record Symbols in Correct Order:

- During the road reconnaissance your crew members report data and measurements as they obtain them. You must record this data and these measurements in the symbols you've just learned, and in the order you will learn here.
- So that any engineer can determine the road conditions by decoding the Road Classification Formula, it is important to record the symbols and measurements in the correct order.
- Here is the correct order. Study it carefully.



PRACTICE EXERCISES:

You may use your FM 5-34 for these exercises:

⑰ Write the letters on your paper in the correct order of the road classification formula.

A. Road surface material

B. Width

C. Obstructions

D. Length

E. Limiting characteristics

F. Special conditions

⑱ Write the road classification formula for the following road recon data:

A. Width of traveled way—7.2 meters

B. Length of road section—5 miles

C. Width of shoulders and traveled way—9.5 meters

D. Surface materials—concrete

E. Curves (least radius)—41 meters

F. Grades steepest—6%

G. Tunnel with an overhead clearance of 4.0m

Turn the page to check your answers.

INTENTIONALLY
BLANK

CHECK YOUR ANSWERS:

⑰ E

B

A

D

C

F

⑱ A 7.2/9.5m k (8.05 km) (OB)

If you had problems answering any of the practice exercises, use your FM 5-34 to work through them again. Otherwise you are ready to proceed.

PRACTICE EXERCISES:

Write the formulas for the following road reconnaissance information:

(19) A. Length of road section—2.8 miles

B. Width of shoulders and traveled way—8.0 meters

C. Traveled way width—5.8 meters

D. 3 curves radius 25 meters, 34 meters, and 42 meters

E. Blocked culvert causing drainage problems

F. Snow drifting across for a 550-meter distance

G. Potholes and shell craters in the roadway causing undetermined foundation problems

H. Surface of gravel

(20) A. Length of road—4.6 miles

B. Width of shoulders and traveled way—10.3 meters

C. Traveled way width—8.9 meters

D. Blocked culvert—recurrent flooding

E. Surface of concrete—no potholes

F. Tunnel with an overhead clearance of 4.0m

Check your answers on the following page.

CHECK YOUR ANSWERS:

⑲ Bcd(f?)s 5.8/8.0m l (4.5 km)(OB)(T)

⑳ Bd 8.9/10.3m k (7.4 km)(OB)(W)

If you had any problems, repeat this part of the lesson.

If not, you are ready to learn to use the Road Classification Formula in preparing SECTION IV, Mileage Chart of the DA Form 1248.

STEP 4

Preparing Section IV, Mileage Chart:

- Now that you know how to record the Road Classification Formula, you will learn how and where to plot this formula on Section IV, Mileage Chart of DA Form 1248. On the job, you prepare this section as you collect measurements and data.

- In preparing Section IV you must do the following steps:

  1. Determine scale.

  2. Record a new formula whenever the road width or road material type changes

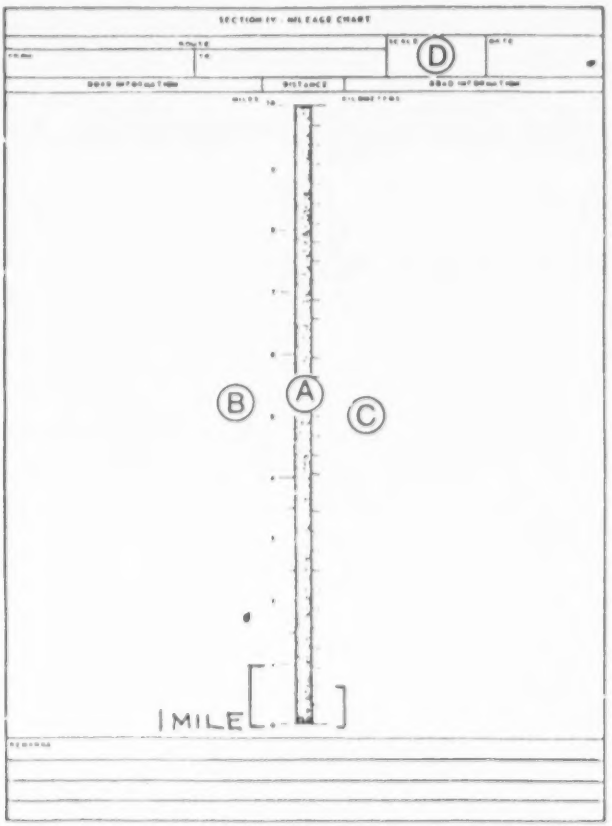
  3. Record intersecting roads.

  4. Record any significant information you have not described elsewhere.

Turn the page to begin.

Preparing Section IV, Mileage Chart (Cont.):

- Before you can determine the scale, you must understand the mileage chart on this form.
- Refer to your FM 5-34 and study the completed mileage chart.
- When you are ready, read the explanation below.



Ⓐ This line represents the road you are reconnoitering.

Ⓑ If you record the distance in miles, you can record up to 10 miles of road here. Each number equals 1 mile.

Ⓒ If you record the distance in kilometers, you allow one (1) or two (2) tick marks (units) for each kilometer on this side.

NOTE: Our scale for the rest of this lesson is 2 tick marks equals one kilometer.

Ⓓ Record the scale in this block of the form. You determine the scale before you begin the recon.

PRACTICE EXERCISES:

(21) When do you prepare Section IV, Mileage Chart of DA Form 1248?

(22) When do you determine the scale for the mileage chart in Section IV?

Turn the page for the correct answers.

CHECK YOUR ANSWERS:

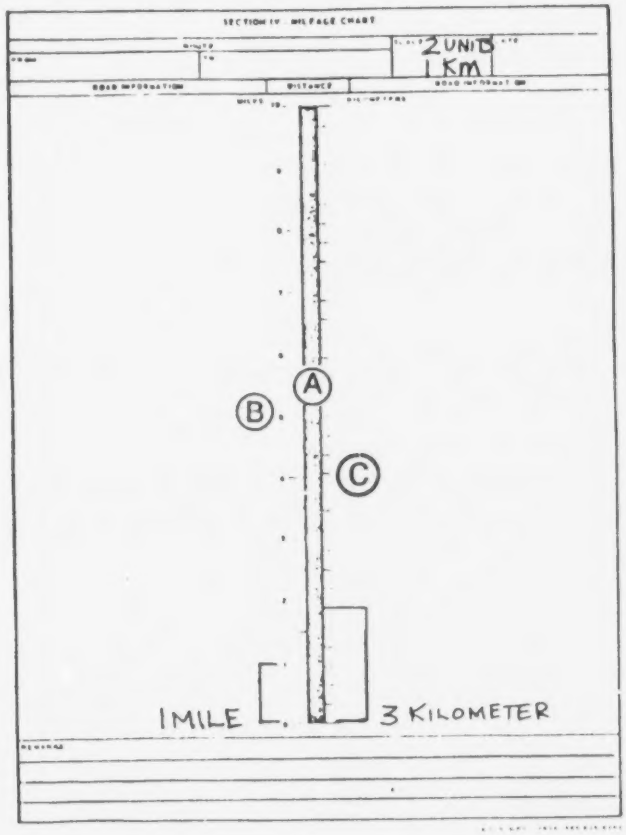
(21) You prepare SECTION IV, Mileage Chart of DA Form 1248 while you are conducting the reconnaissance.

(22) You determine the scale for the mileage chart in SECTION IV before beginning the reconnaissance.

If you had difficulty with the questions, reread the last few pages.
If you had no problems, turn the page for more fun. . .

PRACTICE EXERCISES (Cont.):

Study the DA Form 1248 below, and answer the following questions.



(23) What is the scale for this form?

(24) Match the letter with the appropriate part of the chart.

1. Distance in kilometers _____
2. Road _____
3. Distance in miles _____

CHECK YOUR ANSWERS:

(23) The scale for this form is 2 units equals 1 kilometer.

(24) 1. C

2. A

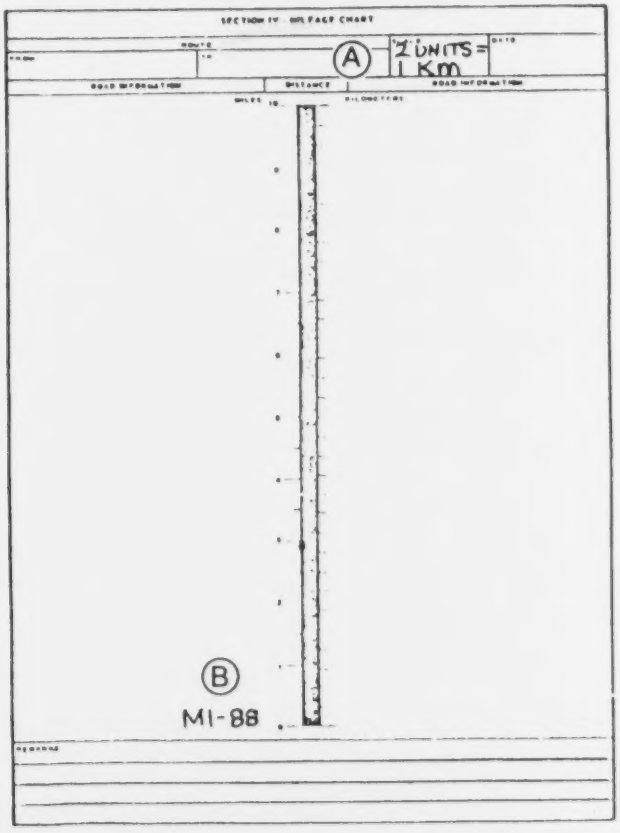
3. B

If you still had difficulties, reread this section again and repeat the exercises.

If you got all the exercises correct, turn the page to learn how to use the Road Classification Formula in preparing this section of the DA Form 1248.

Preparing Section IV, Mileage Chart (Cont.):

- Now that you understand the mileage chart, you will learn what you write in each section of this form.
- Refer to your FM 5-34 to see what a completed Section IV, Mileage Chart looks like.
- Study the form below and learn what you write in each section.



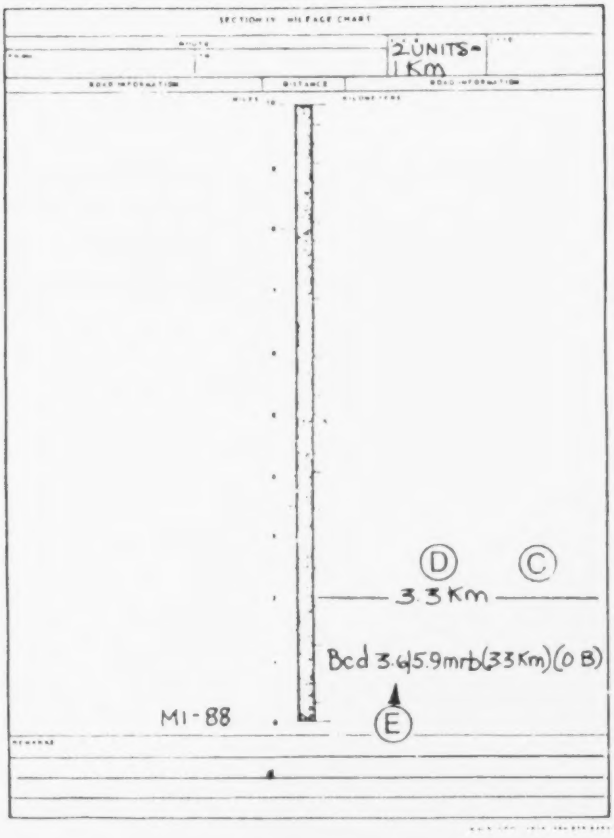
Ⓐ Write the scale for the form.

NOTE: The scale for this chart is 2 tick marks (units) equals 1 kilometer.

Ⓑ Enter the **starting point** of the road reconnaissance.

NOTE: In the example above our starting point is MI-88.

Preparing Section IV, Mileage Chart (Cont.):



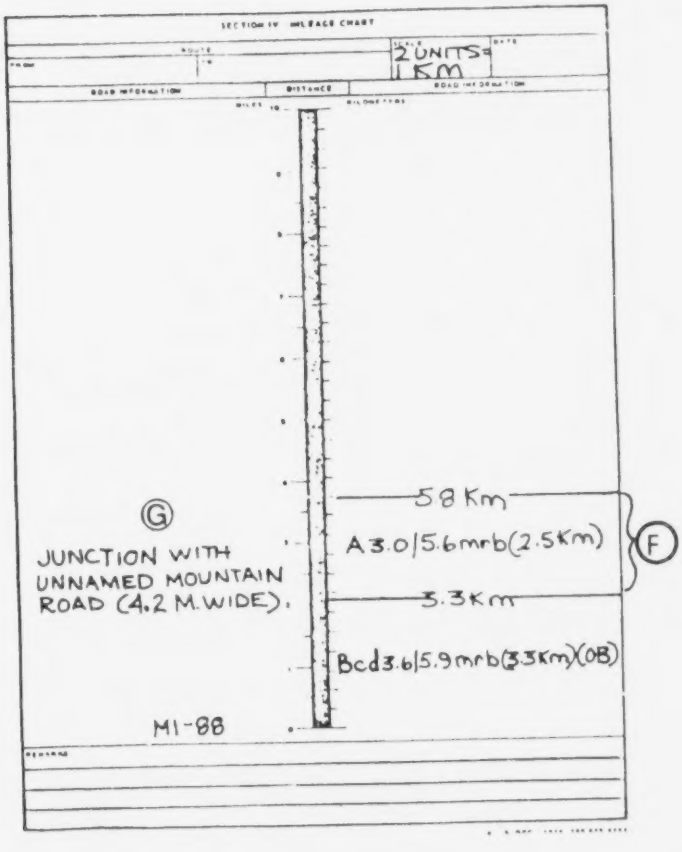
Ⓒ Draw a broken horizontal line at the tick mark which represents where the road characteristics change.

NOTE: In this example the road characteristics change at 3.3 kilometers from the starting point.

Ⓓ Record the distance from the starting point to the point where the road characteristics change.

Ⓔ Enter the Road Classification Formula for the first section of the road.

Preparing Section IV, Mileage Chart (Cont.):



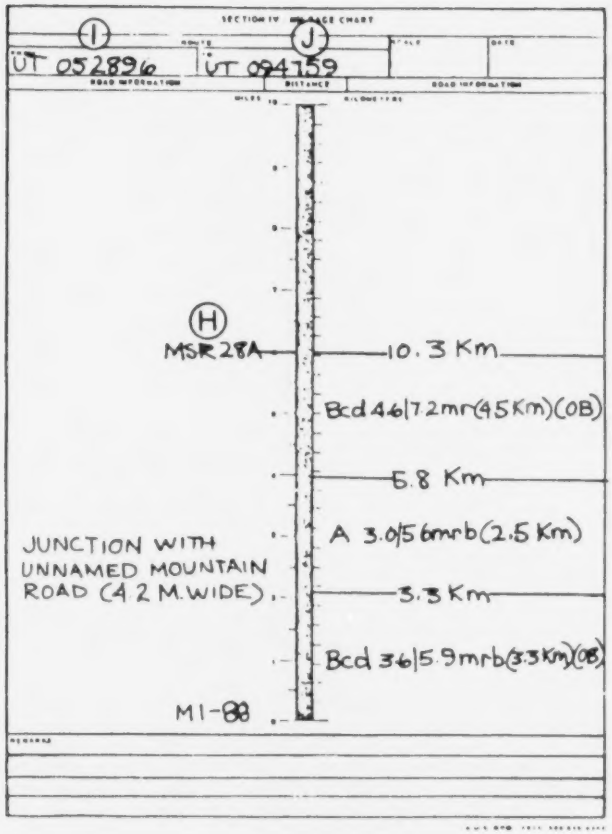
Ⓕ Repeat steps C, D, E each time the road characteristics change. On the chart you must always record the **total distance** from the starting point to the end of that section. You then write the ***length of the section*** and place it in parentheses in the formula.

NOTE: In the example above the total distance is 5.8 km from the starting point, but the length of the section is only 2.5 km.

Ⓖ Record any intersecting roads by route number or description.

NOTE: In the example above we describe the road since it had no name.

Preparing Section IV, Mileage Chart (Cont.):



Ⓗ Record the location where the road reconnaissance ends.

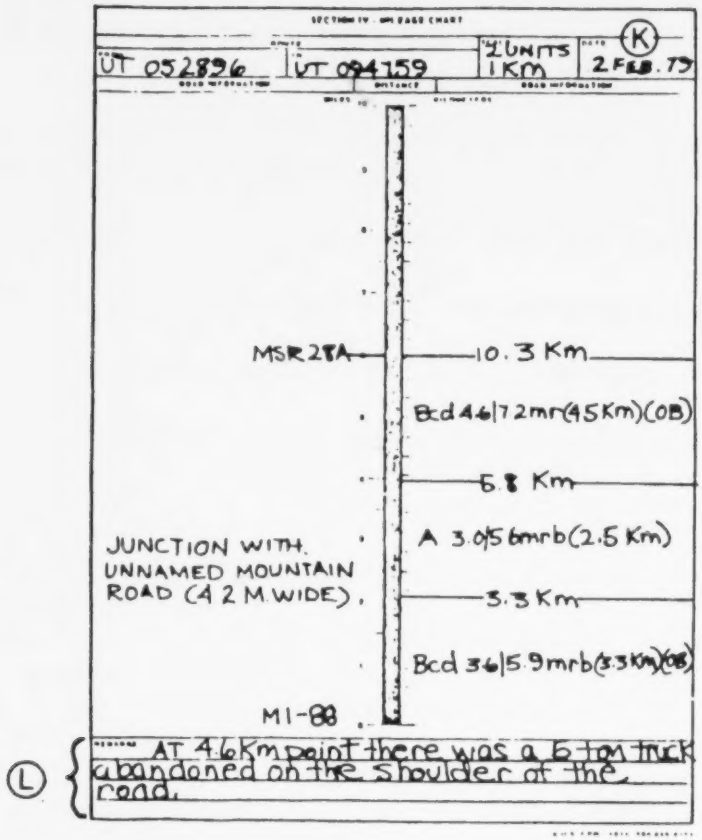
NOTE: In the example above the road recon ends at the intersection of MSR 28A.

Ⓘ Record the grid coordinate for the starting point of the reconnaissance.

NOTE: These coordinates should consist of six digits.

Ⓙ Record the grid coordinate for the ending point of your reconnaissance.

Preparing Section IV, Mileage Chart (Cont.):



Ⓚ Enter the date you conducted the reconnaissance.

Ⓛ Enter any significant information that you have not described elsewhere on the form.

That's all there is to preparing SECTION IV, Mileage Chart of DA Form 1248. Study this procedure carefully. When you are ready, take out a blank DA Form 1248, and perform the following practice exercises.

PRACTICE EXERCISE:

You are conducting a road reconnaissance. Using your FM 5-34 record the following measurements and data in the Road Classification Formulas and prepare Section IV, Mileage Chart of DA Form 1248.

Remember: When determining road length, you must convert miles into kilometers. If you do not remember how to do this, turn to p. 28 in the text.

For your scale use: 2 tick marks = 1 kilometer.

① Date of reconnaissance—7 Dec. 77

Time—0700 hrs.

② Starting point—junction with route 119 (civilian)

Starting odometer reading—17934.6 miles (Grid SB962425)

Width road at start—6.8/10.0 meters

③ Steep grade observed (uphill)—7% for 50m

(Grid SB968419—odometer 17936.8 miles)

④ Sharp curve observed—radius—28m

(Grid SB983367 = odometer 17939.1)

⑤ Steep grade observed (downhill)

8% for 150m

5% for 600m

(Grid SB983367—odometer 17939.1 miles)

Turn the page and continue. . .

PRACTICE EXERCISE (Cont.):

⑥ Road surface—water-bound macadam with superficial asphalt cover

⑦ **Road change**—odometer 17940.0 miles

(Grid SB991344)

⑧ Roadway width 8.3/10.5 meters

(Grid SB993345)

Road surface remains the same.

⑨ Blocked culvert. Road foundation is being undermined.

⑩ Junction with gravel—odometer 17941.0—road which is shown as a trail on the map. Road runs east from MAS 19 for at least 400 meters.

⑪ **Road change**—odometer 17942.0
(Grid TB041342)

Roadway width—8.6/11.0 meters

Road surface is blacktop on macadam.

⑫ Roadway pitted by artillery fire. Foundation damaged. Craters are 0.3-0.8 meters deep by 1.5-2.0 meters in diameter. This condition exists for 500 meters along the road. A 5-ton truck could negotiate at 5-10 miles per hour.

(Grid TB065346—odometer 17942.8)

Turn the page and continue. . .

PRACTICE EXERCISE (Cont.):

⑬ Steep grade observed 9% for 500m.

⑭ Intersection with Route MSR 28A (end of reconnaissance section) Weather cloudy with snow flurries. The temperature is −6° Centigrade.

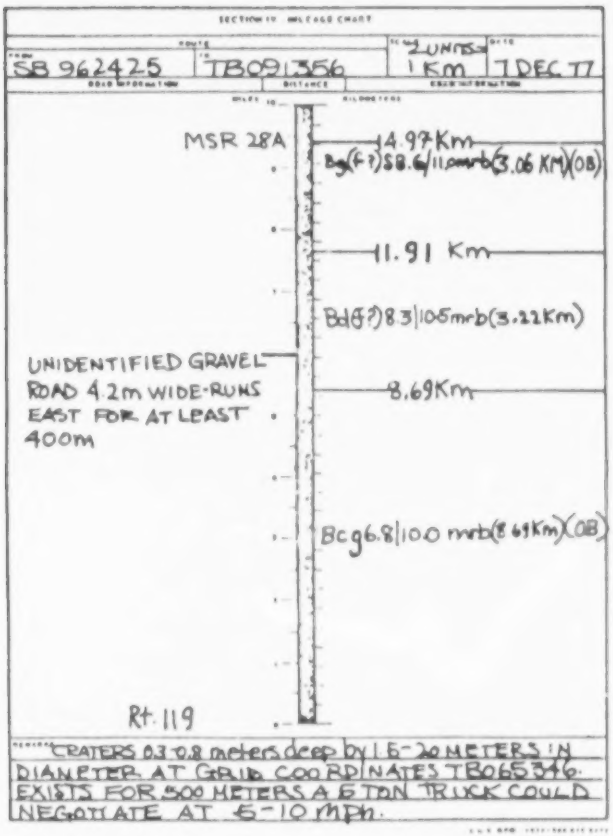
(Grid TB091356—odometer 17943.9)

Time 0930 hours

Check your answers on the next page.

INTENTIONALLY
BLANK

ANSWER:



Does your SECTION IV of the DA Form 1248 look like this?

How does your SECTION IV look? If you had any problems, review this lesson; take out another blank form and try again.

If your DA Form 1248 is similar to the one on this page, you've completed this lesson.

INTENTIONALLY
BLANK

U.S. Government Printing Office: 1985—461-063/34394

SECTION IV - MILEAGE CHART

ROUTE		SCALE	DATE
FROM EG 025848	TO EG 073951	2 Units = 1 Km	11 July 1978

ROAD INFORMATION	DISTANCE	ROAD INFORMATION
	MILES / KILOMETERS	
Dirt Road	12.23 Km	Bgs(d?) 6.5/8 mKb (2.57 Km) (OB)
	9.65 Km	
		Beg 5/8 mKb (6.59 Km) (OB)
Unnamed Blacktop Road	3.06 Km	
Two Unnamed dirt Roads		Bg 6/8 mK (1.61 Km) (OB)
	1.45 Km	
Rt 507		A 6.5/8 mK (1.45 Km)

REMARKS: Unnamed blacktop road will accommodate wheel vehicles and is 1 Km long. Grid EG0719: railroad tracks which don't hinder traffic flow, dirt road good concealment for wheel vehicles - 500 meters

PRETEST/POSTTEST ANSWER KEY